

AFGHL40T65SQD

THERMAL CHARACTERISTICS

Rating	Symbol	Value	Unit
Thermal resistance junction-to-case, for IGBT	$R_{\theta JC}$	0.63	°C/W
Thermal resistance junction-to-case, for Diode	$R_{\theta JC}$	1.71	°C/W
Thermal resistance junction-to-ambient	$R_{\theta JA}$	40	°C/W

ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Collector-emitter breakdown voltage, gate-emitter short-circuited	$V_{GE} = 0\text{ V},$ $I_C = 1\text{ mA}$	BV_{CES}	650	-	-	V
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ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted) (Continued)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
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SWITCHING CHARACTERISTICS, INDUCTIVE LOAD

Turn-on delay time	$T_C = 175^\circ\text{C}$, $V_{CC} = 400\text{ V}$, $I_C = 20\text{ A}$, $R_G = 6\ \Omega$, $V_{GE} = 15\text{ V}$, Inductive Load	t				
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TYPICAL CHARACTERISTICS

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TYPICAL CHARACTERISTICS

Figure 13. Switching Loss vs. Gate Resistance

Figure 14. Switching Loss vs. Collector Current

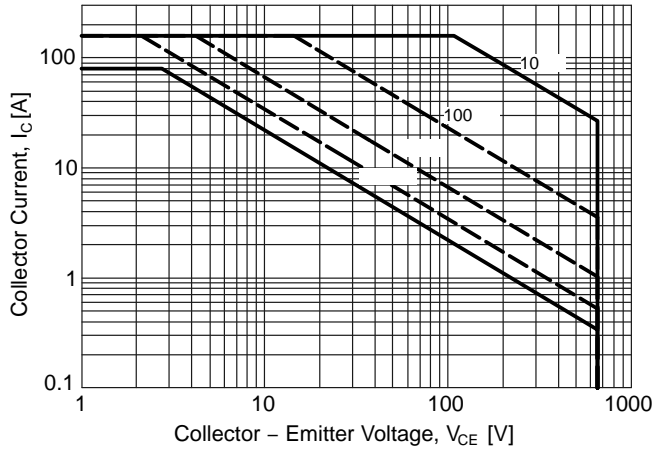


Figure 15. SOA Characteristics

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